

REMARKS

Examiner Akilulu K. Woldemariam is thanked for the thorough examination and search of the subject Patent Application.

Claims 1, 14, 27 and 40 have been amended and claims 3, 16, and 29 have been canceled.

The examiner is thanked for allowing claims 3, 16, and 29 if rejection under 112 is overcome and the subject matter of allowed dependent claims 3, 16 and 29 has now been incorporated into their respective independent claims, so we now believe all claims to be in allowable condition.

All Claims are believed to be in condition for Allowance, and that is so requested.

Reconsideration of the rejection of claims 1, 3, 4, 14, 16, 17, 27, 29, 30, and 40 under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly out and distinctly claim the subject matter which applicant regards as the invention is requested, based on amended claims and the following remarks:

In claims 1 and 14 the term "destination image" was specified by "said" in order to indicate that it is the same destination image as mentioned in line 3. Furthermore the term

"source image" was specified by "said" in order to indicate that it is the same source image as mentioned in line 1. Claims 27 and 40 have been amended accordingly.

Claim 4 has been amended by indication that the term "edge of the image" refers to the source image. Claims 17 and 30 have been amended accordingly. Claims 3, 16, and 29 have been canceled.

Reconsideration of the rejection of claims 1, 2, 10-11, 14-15, 24, and 25 under 35 U.S.C. 103(a) as being unpatentable over Echerer et al., hereinafter Echerer, (US Patent 5,740,267) in view of Okuno et al., thereinafter Okuno (US Patent 6,546,157) is requested, based on the following remarks:

The amended Claim1 of the claimed invention discloses:

1. (currently amended) A method to zoom a region of interest from a digital source image, wherein a resolution of the region of interest is either decimated or enlarged to fit into a destination image, comprises the following steps:

5 (1) define size and location of said region of interest as part of said source image;

 (2) calculate scale of conversion in x- and y-direction;

 (3) calculate number of rows of pixels of said destination image according to scale of conversion desired in y-direction;

10 (4) calculate number of pixels contained in a row of pixels of said destination image according to scale of conversion desired in x-direction;

15 (5) calculate color values of each pixel along the rows of pixels of the destination image by interpolation from nearest row of pixels of said source image wherein the color values of the pixels of the destination image being located between the left side edge of the source image and the first pixel of the nearest row of pixels of the region of interest of the source image and the color values of the pixels of the destination image being located between the right side edge of the source image and the last pixel of the nearest row of the source image are achieved by replicating the color values of said first, or correspondingly said last, pixel of the nearest row of the source image; and

20 (6) display zoomed region of interest in said destination image.

The subject matter of allowed dependent claim 3 has now been incorporated into its respective independent claim 1.

Claim 14 of the claimed invention has been amended similarly. as claim 1:

14. (currently amended) A method to zoom a region of interest from a digital source image, wherein a resolution of the region of interest is either decimated or enlarged to fit into a destination image, comprises the following steps:
- (1) define size and location of said region of interest as part of said source image;
 - (2) calculate scale of conversion in x-and y-direction;
 - (3) calculate number of columns of pixels of said destination image according to scale of conversion desired in x-direction;
 - (4) calculate number of pixels contained in a column of pixels of said destination image according to scale of conversion desired in y-direction;
 - (5) calculate color values of columns of pixels of said destination image by interpolation from nearest column of pixels of source image wherein the color values of the pixels of the destination image being located between the upper side edge of the source image and the first pixel of the nearest column of pixels of the source image and the color values of the pixels of the destination image being located between the bottom side edge of the source image and the last pixel of the nearest column of the source image are achieved by replicating the color values of said first, or correspondingly said last, pixel of the nearest column of the source image.; and
 - (6) display zoomed region of interest in said destination image.

The subject matter of allowed dependent claim 16 has now been incorporated into its respective independent claim 14.

Claims 2, 10, 11, 15, 24 and 25 are dependent claims upon base claim 1 or respectively of base claim 14, which are believed to be patentable according to the arguments above.

Reconsideration of the rejection of claims 4, 8, 9, 13, 17, 21-22, 26-28, 30, 34-35, and 37-40 under 35 U.S.C. 103(a) as being unpatentable over Echerer in view of Okuno as applied to claims 1 and 14 above and further in view of Harasimiuk (US Publication number 2002/0154123A1), is requested, based on the following remarks:

Claims 4, 8, 9, 13, 17, 21, 22, and 26 are dependent claims upon base claim 1 and respectively of base claim 14, which are believed to be patentable according to the arguments above.

Claim 27 of the claimed invention discloses:

27.(currently amended) A method to zoom a region of interest from a digital source image, wherein a resolution of the region of interest is either decimated or enlarged to fit into a destination image, comprises the following steps:

- (1) define size and location of said region of interest as part of said source image;
- (2) calculate the scale of conversion of the resolution in x-and y-direction;
- (3) calculate number of rows of pixels of said destination image according to scale of conversion desired in y-direction;
- (4) calculate number of pixels contained in a row of pixels of said destination image according to scale of conversion desired in x-direction;
- (5) calculate x, y virtual starting point of said destination pixel for each frame;
- (6) calculate virtual location of first destination pixel for new row in x-direction and interpolate new color values of color space of said first destination pixel from nearest source pixels located at nearest row of

source pixels in y-direction wherein the color values of the pixels of the destination image being located between the left side edge of the source image and the first pixel of the nearest row of pixels of the source image and the color values of the pixels of the destination image being located between the right side edge of the source image and the last pixel of the nearest row of the source image are achieved by replicating the color values of said first, or correspondingly said last, pixel of the nearest row of the source image;

(7) calculate virtual position of next destination pixel in x-direction according to scale factor and interpolate new color values of color space used of said next pixel from nearest source pixels located at nearest row of source pixels in y-direction wherein the color values of the pixels of the destination image being located between the left side edge of the source image and the first pixel of the nearest row of pixels of the source image and the color values of the pixels of the destination image being located between the right side edge of the source image and the last pixel of the nearest row of the source image are achieved by replicating the color values of said first, or correspondingly said last, pixel of the nearest row of the source image;

(8) go to next step (9) if last destination pixel in x-direction has been reached otherwise go to step (6);

(9) go to step (11) if last row of destination pixels has been reached otherwise go to next step (10);

(10) calculate virtual location of next row in y-direction according to scale factor in y-direction and go to step (5); and

(11) display zoomed region of interest in said destination image.

The subject matter of allowed dependent claim 29 has now been incorporated into its independent claim 27.

Claims 28, 30, 34-35 and 37-39 are dependent claims upon base claim 27, which is believed to be patentable according to the arguments above.

Claim **40** of the claimed invention discloses:

40. (currently amended) A method to zoom a region of interest from a digital source image comprises the following steps:

- (1) define size and location of said region of interest as part of said source image;
- (2) calculate the scale of decimation in x-and y-direction;
- (3) calculate number of columns of pixels of said destination image according to scale of conversion desired in x-direction;
- (4) calculate number of pixels contained in a column of pixels of said destination image according to scale of conversion desired in y-direction;
- (5) calculate x, y virtual starting point of a destination pixel for each frame;
- (6) calculate virtual location of first destination pixel for new column in y-direction and interpolate new color values of color space of said first destination pixel from nearest source pixels located at nearest column of source pixels in x-direction wherein the color values of the pixels of the destination image being located between the left side edge of the source image and the first pixel of the nearest row of pixels of the source image and the color values of the pixels of the destination image being located between the right side edge of the source image and the last pixel of the nearest row of the source image are achieved by replicating the color values of said first, or correspondingly said last, pixel of the nearest row of the source image;
- (7) calculate virtual position of next destination pixel in y-direction according to scale factor and interpolate new color values of color space used of said next pixel from nearest source pixels located at nearest column of source pixels in x-direction wherein the color values of the pixels of the destination image being located between the left side edge of the source image and the first pixel of the nearest row of pixels of the source image and the color values of the pixels of the destination image being located between the right side edge of the source image and the last pixel of the nearest row of the source image are achieved by replicating the color values of said first, or correspondingly said last, pixel of the nearest row of the source image;
- (8) go to next step (9) if last destination pixel in y-direction has been reached otherwise go to step (6);
- (9) go to step (11) if last column of destination pixels has been reached otherwise go to next step (10);
- (10) calculate virtual location of next column in x-direction according to scale factor in x-direction and go to step (5); and
- (11) display zoomed region of interest in said destination image.

The subject matter of allowed dependent claim 29 has now been also incorporated into independent claim 40.

Reconsideration of the rejection of claims 5-7, 12, 18-20, 23 and 31-33 under 35 U.S.C. 103(a) as being unpatentable over Echerer et al., hereinafter Echerer, (US Patent 5,740,267) in view of Okuno et al., thereinafter Okuno (US Patent 6,546,157) and further in view of Zheng (U.S. Patent 6,453,074 B1) is requested, based on the following remarks:

Claims 5-7, 12, 18-20, 23 and 31-33 are dependent claims upon base claim 1 and respectively of base claim 14 or claim 27, which are believed to be patentable according to the arguments above.

Reconsideration of the provisional rejection of claims 1, 3, 6-9, 14-16, 19-21, 27, 29, 32-35 and 40 on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-7, 12-18, 23, 25-29, and 34 of copending Application No. 10/830, 329 is requested, based on the following remarks:

A Terminal Disclaimer was submitted with a response to the Final office action on March 17, 2008, and is believed to overcome this double-patenting rejection.

Applicants have reviewed the prior art made of record and not relied upon and have discussed their impact on the present invention above.

Allowance of all Claims is requested.

It is requested that should the Examiner not find that the Claims are now Allowable that the Examiner call the undersigned at 845-452-5863 to overcome any problems preventing allowance.

Respectfully submitted,



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